

Abstract

This invention provides a new electroluminescent conjugated polymers grafted with highly efficient phosphorescent organometallic complexes (such as iridium, platinum, osmium, rubidium, etc.) and charge
5 transport moieties (such as oxadiazole, thiadiazole, triazole, pyridine, pyrimidine, substituted or non-substituted tertiary arylamines, substituted or non-substituted quarternary arylammonium salts, substituted or non-substituted tertiary heterocyclic aromatic amines, substituted or non-substituted quarternary heterocyclic aromatic ammonium, etc.). The
10 emissive polymers (fully conjugated or limited conjugating length) covering the full visible range can be prepared. The polymeric light emitting diodes with these materials can be used as indicators, light source and display for cellular phones, digital camera, pager, portable computer, personal data acquisition (PDA), watch, hand-held videogame, billboard, etc.

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